

Application No.: 10/583,525

Amendment and Response dated November 30, 2009

Reply to Office Action of June 29, 2009

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

1. (Currently amended): A mounting for a mounted semiconductor assembly comprising:
a semiconductor assembly consisting of a single semiconductor die or a plurality of semiconductor dies consisting of a first chip and one or more second chips stacked or flip-mounted thereon,;
a first portion for mounting a the semiconductor assembly;
a second portion having a heat radiating portion; and
a connecting portion joining the first and second portions and arranged to allow folding of the second portion over the first portion to form a cover, wherein the mounting comprises a sealing material at least partially encapsulating the mounting and the semiconductor assembly such that at least part of a printed circuit board facing surface of the first portion and/or the heat radiating surface of the second portion are left exposed.
2. (Canceled)
3. (Currently amended): A mounted semiconductor assembly mounting according to claim 1 wherein the first portion of the mounting comprises a formation of electrical connectors[[,]] each of which has a have said printed circuit board facing said surface[[s]], which is are not covered by said sealing material.
4. (Currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the second portion is arranged to be in a spaced parallel relationship with the first portion.

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5. (Currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the second portion further comprises at least one additional edge portion arranged to extend when the mounting is folded beyond at least one edge of the first portion of the mounting.

6. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 5 wherein the mounting is in the form of an EMI enhanced package wherein the second portion is provided with four additional edge portions to define four walls to protect the semiconductor assembly.

7. (Currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting is formed from a single sheet of electrically and thermally conducting material ~~which is preferably copper~~.

8. (Currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the connecting portion is provided with folding means to enable the folding of the second portion over the first portion, ~~and the folding means is preferably at least one weakened line, such as a scored line or an etched line in the mounting having a thickness that is less than that of the rest of the mounting, and more preferably the folding means includes two weakened lines, one between the first portion and the connecting portion and one between the second portion and the connecting portion.~~

9. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting is provided with a third portion and second folding portion arranged to allow folding of the third portion over the second portion to form said cover, ~~preferably~~ such that the third portion is in a spaced parallel relationship with the first portion and second portion.

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10. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting further comprises a means for mounting surface mount technology (SMT) component which is preferably a passive component, for example a resistor, capacitor, and/or inductor.

11. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 10 wherein the SMT mounting means comprises one or more recesses in the second portion.

12. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the cover is patterned or formed to function as a passive component which is preferably an antenna, an inductor, an interdigitated capacitor, a and/or parallel plate capacitor, a microstrip coupler, and/or a filter or combinations thereof.

13. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting further comprises means adapted for mounting a sensor semiconductor assembly, preferably the sensor mounting means is adapted for mounting an image sensor semiconductor assembly, biometric sensor semiconductor assembly, and/or pressure sensor semiconductor assembly or combinations thereof.

14. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the cover is adapted to provide direct access to the semiconductor assembly, preferably such direct access means comprises an aperture in the cover.

15. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 14 wherein the mounted semiconductor assembly mounting is further adapted to mount an optical component in relationship to an image sensor semiconductor chip.

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16. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 14 wherein the direct access means is further defined by having one or more recesses about its perimeter, which recesses preferably face towards, or away from, a mounted semiconductor assembly.

17. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 16 [[14]], wherein the direct access means and/or the recesses can be used to locate a further component for use in the semiconductor assembly.

18. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting further comprises one or more recesses formed within the cover into which mould material can flow to secure the cover.

19. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, which further comprises a means to permit coupling of selected frequencies of electromagnetic radiation through the mounting, preferably the frequency coupling means comprises one or more apertures in the cover of appropriate dimension to permit coupling at a selected frequency.

20. (Currently amended): A mounted semiconductor assembly mounting according to claim 3 [[1]], wherein the formation of electrical connectors is in a spaced relationship with the first portion base support and are linked electrically with the semiconductor assembly.

21.-22. (Canceled)

23. (Withdrawn – currently amended): A mounted semiconductor assembly mounting according to claim 1, wherein the mounting further comprises a heat dissipation means to

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provide a low thermally resistive path between a mounted semiconductor assembly and the cover of the package.

24. (Currently amended): A mounted semiconductor assembly ~~mounting~~ according to claim 1, wherein the mounting is part of an array of a plurality of mountings.

25.-40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (New): A mounted semiconductor assembly according to claim 7 wherein the single sheet of electrically and thermally conducting material is copper.

44. (New): A mounted semiconductor assembly according to claim 8 wherein the folding means is at least one weakened line in the mounting having a thickness that is less than that of the rest of the mounting.

45. (New): A mounted semiconductor assembly according to claim 44 wherein the at least one weakened line is a scored line or an etched line in the mounting.

46. (New): A mounted semiconductor assembly according to claim 8 wherein the folding means includes two weakened lines, one between the first portion and the connecting portion and one between the second portion and the connecting portion.

47. (New): A mounted semiconductor assembly according to claim 1 wherein the second portion is continuous.

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48. (New): A mounted semiconductor assembly according to claim 1 wherein the second portion functions as a heatsink.

49. (New): A mounted semiconductor assembly according to claim 1 wherein the second portion functions as a low resistance and low inductive path to ground.

50. (New): A mounted semiconductor assembly according to claim 1 wherein the second portion functions as a local electromagnetic shield.